EXECUTIVE SUMMARY

- Young Minos issues:

  - Plan deployment of our share of 4.5 PB (raw) Dcache

  - Please start using jobsub, not minos_jobsub, for move to new grid servers

  - All quiet on the Bluearc front. Still shifting files out of app and to data2.

- Need to move to SLF6 – test on minos-slf6

  - NFS 4.1 access to Bluearc

  - Access to 2K + grid nodes

- Deploying CVMFS for access to OSG (including CMS & D0)

- Retired all old AFS data areas, small remnant code/e875 and data/minos

- Minerva testing elm now, still using dogwood6 today

- Minos-beamdata is retired, using IFBEAM database

- setup minos – available from /grid/fermiapp/products/public

  - For easy selection of experiment (minos, nova, …)

GRID

- CPN – 14.8 million locks served to Minos (6.7 M NovA, 23 M MNV)\
    - setup cpn -z /grid/fermiapp/products/common/db
    - start using ifdhc instead of cpn (setup ifdhc)
        - Supports cpn, gridftp, others as appropriate
- New architecture coming, merging minos25/54 and gpsn01 functions

    - Requires use of jobsub in place of minos_jobsub (setup jobsub_tools)
    - Automatic provision of proxies, no more login to minos25
    - HA High Availability, execution limits as needed, etc.
- CVMFS is supported in production now

    - We will deploy for code and shared files
- DOE grid certs moved to OSG – completed including minos25/54 host certs

DATA handling - SAM

- SAMWEB is deployed for Minos

    - A web services SAM server, command line and URL access

    - We should migrate to this from traditional sam

    - Examples soon https://cdcvs.fnal.gov/redmine/projects/minos/wiki/SAM-LIST

    - Can deploy by unwinding tarfile and running samweb binary directly

- Preparing to move SAM servers from minos-sam04 to new host

    - still in preparation, no firm date, experts busy with other things

DATA handling - Bluearc

- Bluearc overloads much lighter since Apr 17 separation of App and Data

    - Essentially no outages.

    - Will lock by file system, not group, in future (transparent)

- Deployed 50 TB /minos/data2 – still moving individual /minos/data/users there

- /minos/app data cleanout/purge

    - moving user data files to /minos/data

    - Will imposed quotas, initially large

- Start using ifdh cp in place of cpn

    - Invokes cpn where appropriate, plus ftp etc when needed

    - Uses dd for faster file moving

    - setup ifdhc   then   ifdh cp ... (or standard setup_minos)

Enstore/DCache

- Dcache NFS 4.1 direct file access – requires SLF 6.4

    - Working now on minos-slf6

- ENSTORE SFA (Small File Aggregation) is deployed

    - We should use this to archive mcin_data and stage areas

- CD deploying 4.5 PB (pre-raid capacity) for IF

    - Deployed in productin mid November

    - 19 controllers, each 60 x 4 TB disks

    - data rates >250 MB/sec per controller with 15 streams

    - will hold some capacity back for exploration of storage alternatives

    - How much do we ask for (all MC input, all SNTP output)

    - How should it be configured (one big pool, one per experiment …)

    - Should it be raided (lose about %10 due to raid 6)

    - We should provide input at FIFE Stakeholders meeting Oct 2 14:30 Comitium

SCS/SDP news

- REX is dead, long live REX
  - CS – Computing Sector
    - SCD – Scientific Computing Division (vs CCD Core)
      - SCS – Scientific Computing Support
        - SDP - Scientific Data Processing
- The SCD supported jobsub script does work for us
  - setup jobsub_tools
  - Will start using for production, should stop using minos_jobsub
- IF Beam monitoring deployed for NOvA era beam monitoring
  - JAS is retired, replaced by web applications
  - Margherita Vittone implemented NumiMon display
    - http://dbweb0.fnal.gov/ifbeam/numimon/Display
  - Big Green Button is   http://dbweb0.fnal.gov/ifbeam/app/a9_monitor
  - Variable Monitor is   http://dbweb0.fnal.gov/ifbeam/vmon/index?list=nova_standard
- MOUs are now called …? We still do not have an approved one.

GPCF

minos-slf4 = minosgpvm02 runs SLF 4.7 32 bit kernel

- – Had to extend exemption for Minerva MC.

- – Could go away at any moment

Deployed minos-slf6 for NFS 4.1 Dcache direct access tests

- – Need 32bit compatibility libraries

- – Can read Dcache (/pnfs/minos) directly via NFS 4.1

Minos Servers

- SLF5 migration – Complete
    - Reco group certified reco built at SLF5. Thanks !
- SLF6 migration – just starting, use minos-slf6
- Copied Hardware Database tables to master server
    - formerly on Soudan server (retired)

Control Room / DAQ

- Control Room computers

  – Still using 10 year old 19" 1280x1024 monitors.

- Control Room networking – managed switch being installed

  – new switch being installed soon

- FPCONSOLE

  – The system labeled minos-dcs has moved underground

  – Access the screen via VNC

  – Removing the DAQ/DCS network from WH12 for security

- ECL – will migrate all forms to the new editable format

  – Adding conditional fields and centered notes, WIP

- minos-om web server retirement

  – Static pages have moved to nusoft.fnal.gov/minos/controlroom/…

  – cgi (FLUFFY) will move to new CD server soon-ish